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Please AMEND claim 29 to read as follows:

29. (Amended)

1 The method of claim 23 wherein the cap has twice as many vapor barrier
2 layers as the vapor barrier layer(s) of the container.

R E M A R K S

Drawings

As requested, two sheets of substitute formal drawings are submitted which contain the changes approved in the Office Action.

§112 Rejection

The indefiniteness rejection of claims 4 and 5 have been obviated by cancelling these claims.

Premature Final Rejection

Reconsideration and withdrawal of the Final Action as being premature is requested. Applicant's amendments of the elected claims did not necessitate a Final Rejection since the subject matter thereof was embodied in original method claims 10-13. In all fairness, applicant should have at least one opportunity to consider and address the new grounds of rejection. Therefore, reconsideration and withdrawal thereof as being premature is requested.

The Rejection

Original claim 23 was rejected only under §103 as being unpatentable over Arnold in view of Kani. Dependent claims 24, 25 and 28-31 were rejected only under §103 as being unpatentable over Arnold in view of Kani and Kohn, and dependent claims 26 and 27 were rejected only under §103 as being unpatentable over Arnold in view of Kani plus Luenser.

Arnold

Arnold discloses a container 10 for shampoo which is blow molded with a large fill port 16, a small dispensing port 18 and an integral hinged flap 14 formed in flash with live hinges 34 and 50 with a first closure portion 40 with fingers 42 and a bead 54 for releasably closing the fill port 16 and a second closure portion 42 with a plug 48 for releasably closing the dispensing port 18. In use, the container is initially filled (and may be refilled) through the port 16 which is releasably closed by the portion 40 with snap fingers 46 and by squeezing the container its contents is dispensed through the port 18 which is releasably opened and closed by the portion 42 and its plug 48 disposed in the dispensing port 18.

Kani

Kani discloses a squeeze container 1 with a filler inlet 2, a dispensing outlet 5 and an integral closure cap 4 all of which are simultaneously blow molded. Thereafter, when the container is to be used, the end user breaks off and separates the cap 4 at the neck

5' from the container 1 to uncover the opening 5 through which part of the contents is dispensed. Thereafter, closure cap 4 may be releasably snap fit over the rib 3 of the container to releasably close the opening 5.

Kohn

Kohn is simply cited as disclosing a container 1 having two layers 2 and 3 of different polymers with the inner layer 2 providing high resistance to chemical attack. The container has a removable twist-off cap 6 or a releasable closure 7 which is injection molded separately from the container and thereafter a separate disc 8 of a chemically resistant material is inserted in the cap. After the container is filled, the cap is releasably twisted or snapped onto the container.

Luenser

Luenser was cited for its disclosure of sonic welding of plastic materials. Luenser shows an injection molded tamperproof cap 10 removably threaded on the neck of a blow molded container 24 and having frangible ribs 18 attached to the container flange 30 such as by sonic welding or gluing.

Amended Claim 23

Amended claim 23 defines a method of forming a fuel container by providing a pair of mold halves defining a first mold cavity formed in the shape of the container and a second cavity to form at least one cap in a flash portion, providing a parison with a fuel

vapor barrier layer of a polymeric material disposed between inner and outer layers of a different polymeric material which is heat weldable, closing the mold halves to receive a portion of the parison between them forming at least one flash section with at least one cap in the flash section, providing a pressurized fluid in the parison to expand the parison in the first mold cavity to form the entire container, subsequently forming an opening through the container, separating the cap from the flash section, disposing the cap over the opening, and heat welding the cap circumferentially continuously to the container to thereby permanently attach and seal the cap to the container and close, seal and provide a fuel vapor barrier for the opening.

This specific method has the significant practical advantages of producing a plastic fuel tank which meets and complies with the EPA and CARB requirements for minimizing vehicle hydrocarbon fuel emissions, produces less scrap or waste material and is of economical manufacture and assembly, simple design and in service has a long useful life. Without the cap having both a vapor barrier and being permanently sealed to the tank, it would have excessive emissions and would not meet the fuel emission requirements of either the EPA or CARB.

Claim 23 is Patentable

Neither applicant's specific concept, construction and arrangement nor its significant practical advantages are made obvious to skilled persons by the four cited references, whether considered alone or in various combinations set forth in the Office Action. None of the references alone or in combination teach skilled persons applicant's

specific concept and method of providing a parison with a vapor barrier layer, simultaneously blow molding the container and compression molding in the flash a cap from the same parison, subsequently forming an opening through the container, separating the cap from the flash, disposing the cap over the opening and heat welding the cap circumferentially continuously to the container to permanently close, seal and provide a fuel vapor barrier for the opening.

Indeed, contrary to the contention in the Office Action, Arnold teaches away from this method by disclosing blow molding of a container while simultaneously forming a lid permanently attached by a living hinge to the container and having two closures each releasably and removably retained over an associated opening to permit rapid filling of the container through one opening and dispensing of its contents through another opening. Arnold does not teach skilled persons applicant's method steps of providing a parison with a fuel vapor barrier, separating the cap from the container, after blow molding forming the opening through the container, disposing the cap over the opening, and circumferentially continuously heat welding the cap to the container to permanently seal, close and provide a fuel vapor barrier for the opening.

Nor do the remaining references make up for these deficiencies of Arnold. Kani merely discloses simultaneously blow molding both a squeeze container and a separate cap which the end user subsequently breaks off from the container to open it for dispensing for some of its contents and then snapping the blow molded cover onto the container to releasably and removably close the opening.

Kohn merely discloses blow molding a container with two layers for chemical resistance, separately injection molding a removable screw cap and thereafter placing in the end of the cap a separate disc or insert of a chemically resistant material before the cap is screwed onto the container.

Luenser simply discloses a blow molded container and a separate injection molded cap having frangible ribs or tabs sonic welded to the container to provide a tamperproof package in which the tabs are fractured the first time the cap is unscrewed or removed and thereafter the cap can be repeatedly screwed onto and removed from the container for both dispensing its contents and refilling it.

Furthermore, these references do not contain any motivation, suggestion or teaching to skilled persons that they should be combined to achieve applicant's specific method nor which of their numerous elements and steps should be discarded and which selected, rearranged and recombined with elements not disclosed therein to achieve applicant's method steps as defined by amended claim 23. Indeed, if the Arnold and Kani references were combined as proposed in the Office Action, they would only teach skilled persons a construction in which the end user could break off the cover of the Arnold container and thereafter releasably attach the cover to the Arnold container to close its outlets and remove the cover for either filling or further dispensing contents from the Arnold container. Thus, if these references were combined as indicated in the Office Action, they would not teach skilled persons applicant's method as defined by amended claim 23.

Accordingly, for at least these reasons, amended claim 23 defines patentable subject matter under §103 and should be allowable.

Claims 25, 26, and 28-31

Each of the remaining claims is ultimately dependent on amended claim 23 and hence defines patentable subject matter for at least the foregoing reasons.

Claim 28 further defines the method of claim 23 as forming the parison by simultaneously extruding the fuel vapor layer and the inner and outer layers into the parison and while the parison is still in a molten state disposing it between the mold halves of a blow molding machine to form the container and the cap.

Claim 29 is dependent on claim 23 and further defines a method for producing a cap having twice as many vapor barrier layers as that of the container.

The cited references, whether considered alone or in the combinations set forth in the Office Action, do not teach skilled persons the subject matter and steps of these dependent claims 28 and 29 and hence they define patentable subject matter for at least these additional reasons.

Conclusion

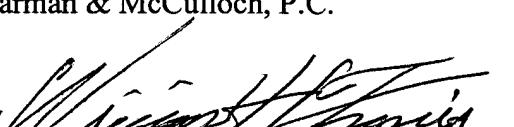
Reconsideration and withdrawal of the Final Action as being premature, entry of the foregoing amendments and allowance of all of the remaining claims 23, 25, 26 and 28-31 as amended is respectfully requested for the foregoing reasons.

If, after considering this response, the Examiner is of the view that any of the claims are not in a condition for allowance, a telephone interview with applicant's undesigned attorney William Francis is requested so that immediate consideration can be given to any further amendments suggested by the Examiner or otherwise needed to place all the claims in a condition for allowance. The Examiner is asked to initiate this interview by telephoning William Francis who can normally be reached Monday through Friday between 8:00 A.M. and 5:00 P.M. at (248) 689-3500.

A Marked-Up Copy Showing Changes Made in this Amendment After Final Rejection is enclosed herewith.

Respectfully submitted,

Reising, Ethington, Barnes, Kissele,
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By 
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WHF:sal

Enclosures

Formal Drawings
Marked-Up Copy Showing
Amendments Made



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JUL 15 2002

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JUL 17 2002

TECHNOLOGY CENTER R3700

Applicant: **Mark R. Johansen**

Serial No. **09/606,702**

Filed: **June 29, 2000**

For: **Multiple Layer Polymeric Cap and Method of Making the Same**

Group Art Unit: **3727**

Examiner: **N. Eloshway**

In reply to: **Examiner's Letter of May 9, 2002**

CERTIFICATE OF MAILING

Date of Deposit with U.S. Postal Service **JULY 9, 2002**. I hereby certify that this paper is being deposited with the United States Postal Service as first class mail under 37 CFR 1.8 on the date indicated above and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

Shirley A. Langley
Shirley A. Langley

Box AF
Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

**MARKED-UP COPY SHOWING AMENDMENTS MADE
IN RESPONSE TO THE FINAL REJECTION**

This is in response to the Final Office Action of May 9, 2002 which rejected all the elected claims under §103 in view of the cited art. This response is being filed by July 9, 2002 so that any extension fee will be calculated from the mailing date of any Advisory Action.

Drawings

Please accept the accompanying two sheets of substitute formal drawings which contain the corrections approved in the Office Action.

IN THE CLAIMS

Please CANCEL claims 4 and 5 without prejudice.

Please AMEND claim 23 as follows:

23. (Amended)

1 A method of forming a fuel container with an opening and a cap sealing the
2 opening, comprising the steps of:

3 providing a pair of mold halves defining a first mold cavity to form and define
4 the shape of a container and adjacent the first cavity a second cavity to form at least one cap
5 in a flash section;

6 providing a parison with a hydrocarbon fuel vapor barrier layer of a
7 polymeric material disposed between inner and outer layers of a different polymeric
8 material which is heat weldable;

9 closing the mold halves together to receive and compress a portion of the
10 parison between them forming at least one flash section in the region of the second cavity
11 and at least one cap in the flash section;

12 providing a pressurizing fluid into the parison within the closed mold halves
13 to expand the parison within the first mold cavity to form the entire container and define the
14 shape of the container;

15 after blow molding forming an opening through the container at a location
16 spaced from the cap;
17 separating the cap from the flash section; [and]
18 disposing the cap over the opening; and
19 heat welding the cap to the container circumferentially continuously to
20 permanently attach [attaching] and seal [sealing] the cap to the container to permanently
21 close, seal and provide a fuel vapor barrier for the opening.

Please CANCEL claim 24 without prejudice.

Please AMEND claim 26 as follows:

26. (Amended)

1 The method of claim 23 which also comprises heat welding at least one of
2 the inner layer and the outer layer of the cap to the outer layer of the container to permanently
3 attach and seal the cap to the container.

Please CANCEL claim 27 without prejudice.

Please AMEND claim 28 as follows:

28. (Amended)

1 The method of claim 23 which further comprises [providing the parison with
2 an outer layer of a polymer material, an inner layer of a polymer material and a vapor barrier
3 layer of a polymer material received between the inner and outer layers with the layers being]
4 simultaneously [extruded] extruding the fuel vapor layer and the inner and outer layers

5 into the parison which is received in a generally molten state between the open mold halves
6 in a blow molding machine to form the container and cap.

Please AMEND claim 29 as follows:

29. (Amended)

1 The method of claim [28] 23 wherein the cap has twice as many vapor barrier
2 layers as the vapor barrier layer(s) of the container.

Respectfully submitted,

Reising, Ethington, Barnes, Kissele,
Learman & McCulloch, P.C.

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